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ABSTRACT

This document consists of answers to questions on various aspects of world population. They are : What is the population of the world ? How fast is the population of the world growing ? When will the population of the world stop growing ? Is the term "population explosion" accurate ? Why did this sudden growth occur ? Did people have more babies than ever before ? What is the impact of rapid population growth ? Wasn't the current famine in Africa caused by rapid population growth ? Why does it take so long to slow or stop population growth, even after birth rates go down ? Which policies are most effective in reducing population growth ? What is happening in China, India, Mexico, and other places with rapid population growth ? What about developed countries ? Given this rather complex picture, what conclusion can be drawn about world population growth ? Also included is a 1985 world population data sheet (with lists of countries by continent), a glossary of population and development terms, two worksheets, and suggestions for further reading. (JN)

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WORLD POPULATION: TOWARD THE NEXT CENTURY

By Elaine M. Murphy

Revised Edition

(Including an issue of the newsletter Interchange (v14 n2 May 1985))

Population Reference Bureau (PRB), Inc.

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World Population

Toward the Next Century

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The information and activities presented are designed to help teachers, students, and others better understand: (1) current and projected population patterns throughout the regions of the world; (2) ways in which populations change; (3) consequences of population change for individuals, families, societies, and the environment; and (4) the complexity of developing policies to deal with problems associated with population change. An essay, glossary of terms, and data sheet provide information for answering the questions and doing the activities included. Suggestions for further reading are provided. (Author/DC)

World Population: Toward the Next Century was written by Elaine M. Murphy. The first edition was published by the Population Reference Bureau in November 1981. The revised edition includes the most recent statistics available and the 1985 World Population Data Sheet. The activities have been changed somewhat to accomodate the new data and a new format.

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World Population: Toward The Next Century

by Elaine M. Murphy

Q. What is the population of the world?

A. In mid-1985 approximately 4.85 billion people inhabited planet Earth. We must say "approximately" because these figures are not precise counts but are the best estimates demographers can make.

The human population is not distributed evenly throughout the world. Some continents have far greater numbers of people than others (Antarctica has almost none!) and the same is true of countries and places within countries.

China at just over one billion is the most populous country in the world. The other countries in the "Top Ten" of population are India, the USSR, the United States, Indonesia, Brazil, Japan, Bangladesh, Pakistan and Nigeria.

Because six of the Top Ten are in Asia, it is not surprising that Asia is by far the most populous continent (with 2.83 billion out of the total 4.85). It is followed by Africa at 551 million, Europe at 492 million, Latin America at 406 million, the USSR (although technically not a continent) at 278 million and North America at 264 million. Oceania, which includes Australia, New Zealand and five island countries, is the smallest at 24 million.

More and more people are living in cities. In 1950, 29 percent of the world's population lived in urban areas; in 1985, 41 percent were urban dwellers. In the year 2020 the majority of human beings—about three-fifths—will live in urban areas.

The cities are getting larger. In 1950, only two cities—the New York-New Jersey agglomeration and London—were over 10 million. In 1985, 11 cities were over 10 million, and in the year 2000, if urban growth rates continue, there will be 25 cities over 10 million. Mexico City will be the largest at 26.3 million and Sao Paulo will also be over 20 million in size, at 24.0 million.

Q. How fast is the population of the world growing?

A. Currently, world population is growing at 1.7 percent a year. This sounds like a low rate, but if it continues it means that today's population will double in size in 41 years (see box). The growth rate of the world peaked at about 2 percent in 1965 and then began a slow decline, initially because of dramatic declines in population growth in the developed world at that time, and later when birth rates in most of the developing world began to fall more rapidly. Current estimates put the growth rate of the world in the year 2000 at slightly under 1.5 percent.

Even with reduced growth rates, the large and growing population base on which the rates are calculated means that the absolute numbers added are also large and growing. The United Nations estimates that in 1985 we added 82 million people to the globe; by the year 2000, even at a lower rate of growth, the annual addition will be 90 million.

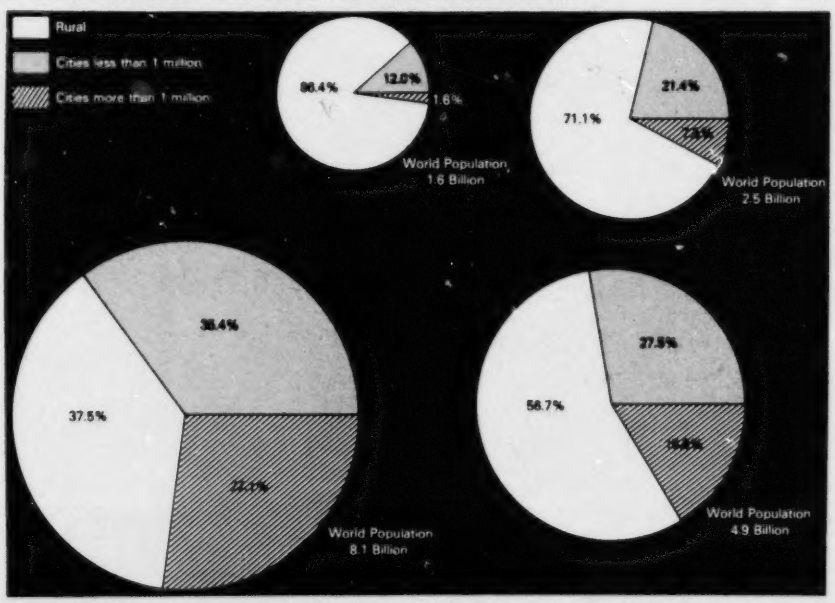
Population Doubling Times

A quick way to figure out how long it will take a population to double in size is to divide 70 by the growth rate. Thus, a population that is growing 1 percent per year will double in 70 years (70 divided by 1 = 70).

Q. When will the population of the world stop growing?

A. The United Nations estimates that world population could stop growing—that is, the number of births and deaths

Patterns of World Urbanization



Sources: Kingsley Davis, International Technical Cooperation Centre Review, July 1972; World Facts and Figures, 1979; UN Population Division; and Population Reference Bureau.

Ten Largest Cities in the World, 1950, 1984, 2000

1950	Population (in millions)	1984	Population (in millions)	2000	Population (in millions)
1. New York-N.E. New Jersey	12.3	1. Mexico City	18.1	1. Mexico City	26.3
2. London	10.4	2. Tokyo-Yokohama	17.2	2. Sao Paulo	24.0
3. Rhine-Ruhr	6.9	3. Sao Paulo	15.9	3. Tokyo-Yokohama	17.1
4. Tokyo-Yokohama	6.7	4. New York-N.E. New Jersey	15.3	4. Calcutta	16.6
5. Shanghai	5.8	5. Shanghai	11.8	5. Greater Bombay	16.0
6. Paris	5.5	6. Calcutta	11.0	6. New York-N.E. New Jersey	15.5
7. Greater Buenos Aires	5.3	7. Greater Buenos Aires	10.9	7. Seoul	13.5
8. Chicago-N.W. Indiana	4.9	8. Rio de Janeiro	10.4	8. Shanghai	13.5
9. Moscow	4.8	9. Seoul	10.2	9. Rio de Janeiro	13.3
10.Calcutta	4.6	10. Greater Bombay	10.1	10. Delhi	13.3

Source: United Nations, Department of International Economic and Social Affairs, 1985.

would be equal—in the year 2110 at 10.5 billion people. This is the medium variant of three projections and it assumes that the present tempo of population programs and policies will continue its current downward pull on fertility. If fertility decreases at a faster pace, world population could stop growing much sooner—in 2040—at 8 billion. If fertility declines at a slower pace, it will take longer to reach zero population growth—until the year 2130—and we will add far more people. The ultimate population size, in that case, would be 14.2 billion.

Q. Is the term "population explosion" accurate?

A. Webster's Dictionary defines "explosion" as a "large-scale and rapid expansion." Since scientists tell us that human beings go back three million years as a distinct species, current growth is "explosive" in relation to overall history.

During more than 99 percent of human existence on earth, people lived as hunter-gatherers. Because both birth rates and death rates were probably moderately high, population grew very slowly and probably never exceeded 10 million. After agriculture replaced the nomadic patterns of food gathering, about 8,000-6,000 B.C., larger numbers could be supported and population grew more quickly. By the year 1 A.D. there were about 300 million people and by 1650 A.D., 500 million.

But it was in the following centuries as the Industrial Revolution in Western Europe gathered steam (quite literally) that population began to grow rapidly. This growth accelerated after World War II when the population of developing countries increased dramatically. After millions of years of extremely slow growth, the human population indeed grew explosively, doubling over and over (see table); a billion people were added between 1960 and 1975. Before the end of this century, the human population will probably reach 6 billion.

Q. Why did this sudden growth occur? Did people have more babies than ever before?

A. For the world, growth occurs only when there are more births than deaths; for individual countries one must also consider immigration and emigration. Population grew rapidly during the Industrial Revolution, not because people were having larger families, but primarily because the death rate began to fall.

This "mortality revolution" began during the Industrial Revolution in Europe and spread to North America by the mid-1800s. The death rate fell because health improvements were triggered by new technologies and increasing industrialization and urbanization. Of particular importance was the increase in food supplies brought about by new farming and transportation technology. The danger of famine decreased and individual nutrition improved. With better nutrition, there was greater resistance to infectious diseases and greater tolerance of illness.

Living conditions gradually improved as industrialization raised personal incomes. Better housing reduced diseases associated with crowding, such as tuberculosis. Personal hygiene also improved, including greater use of soap, and even a switch from wool to cotton underwear reduced diseases caused by lice.

It was later in the 19th century and early 20th century that public health and medical advances hastened the drop in death rates. Eventually ancient killers such as plague, yellow fever, cholera, typhus, dysentery, diphtheria, tuberculosis and malaria came under control. Infant mortality and child mortality gradually but significantly declined; survival rates improved in other age groups; life expectancy rose. Late in the 19th century, birth rates also began to fall in the developed countries, easing the rapid population growth that had resulted from the decrease in death rates.

Estimated Timing of Each Billion of World Population

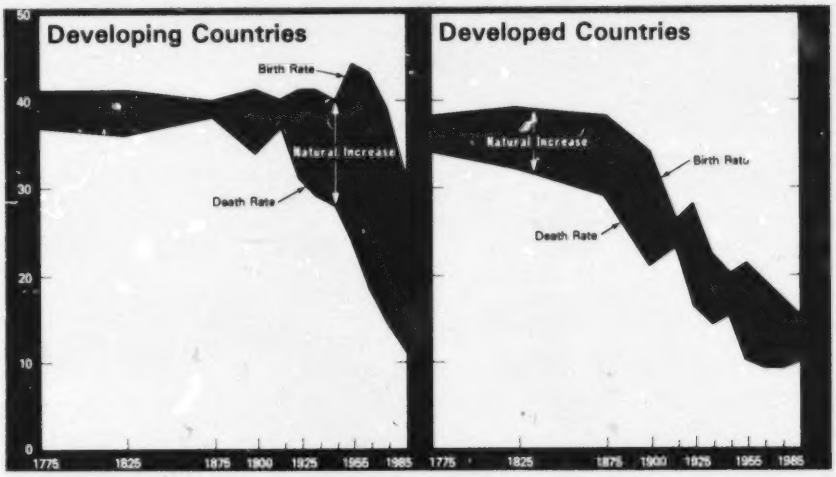
	Time taken to reach	Year attained
First billion	2-5 million years	About 1800 A.D.
Second billion	Approx. 130 years	1930
Third billion	30 years	1960
Fourth billion	15 years	1975
Projections		
Fifth billion	12 years	1987
Sixth billion	11 years	1998

Sources: United Nations and John D. Durand, "Historical Estimates of World Population," Population and Development Review, Vol. 3, No. 3 (September 1977), pp. 253-296.

The post-World War II mortality decline in the developing countries followed a different pattern. Western Europe experienced relatively gradual health improvements arising from its own social, technological and economic progress. In the developing world, it seemed to happen almost overnight through the introduction of medical and public health technology—antibiotics, sanitation, immunization, insecticides (such as DDT which is effective against malaria-bearing mosquitoes), and eradication of smallpox.

For the most part, these changes did not arise from within the countries benefiting from the improvements, but were "imported" through international foreign aid. Similar kinds of food aid cut the death toll during droughts or other disasters. The mortality rate plunged in a matter of decades rather than in a century or more as had happened in the developed world. Birth rates in the developing countries of Africa, Asia and Latin America have barely had time to adjust and thus it is not surprising that population growth has soared.

World Birth and Death Rates



Source: United Nations Population Division, 1970 and 1982 Assessments

Q. What is the impact of rapid population growth?

A. This is a complex question. Rapid population growth is associated with air and water pollution, declining supplies of minerals and fossil fuels, deforestation, overfishing, loss of agricultural land, crowding and its effects, poverty, higher mortality, social and political unrest, and inadequate housing, schools and health services. However, it would be a gross oversimplification to say that population growth *causes* these problems.

To analyze pollution and energy consumption, for example, one must consider many factors: the worldwide increase in industrialization; techniques used in extracting minerals and in manufacturing, packaging, transporting and marketing products; inadequate pollution controls and recycling schemes; per capita and societal consumption patterns; prices which encourage or discourage conservation or the search for alternatives; per capita income and preferences for products or lifestyles; and population growth.

Similarly, poverty existed long before the recent period of rapid population growth. In trying to understand poverty, one must consider the amount of natural resources—such as rich soil, fresh water, natural harbors, navigable rivers, oil, minerals, and forests—a country possesses or lacks. One must consider the prevalence of disease endemic to an area. One must consider political and social patterns which concentrate power and wealth in the hands of a few, making it difficult for the poor to break out of the cycle of poverty that is often passed on from generation to generation.

But to dismiss the role of population growth in environmental and economic problems is as simplistic as to blame all human miseries on it. For many problems, population growth may not be the cause but it may greatly intensify the problem.

For example, urbanization seems to be an inevitable part of the process of becoming a modern nation. Rapid population growth in rural areas of developing countries accelerates migration to the cities as ever-larger numbers of people seek jobs which the rural areas can no longer supply. High fertility in the cities, although usually lower than in rural areas, means built-in natural increase (population growth due to the difference between births and deaths) to which is added high rates of immigration. An already inadequate supply of jobs, housing, clean water, sewage and waste disposal, transportation, schools, health facilities and social services may be strained to the breaking point by rapid population growth, even though it may not have caused those conditions in the first place.

Top Ten in Population, 1985

Country	Population (in millions)
China	1,042.0
India	762.2
USSR	278.0
United States	238.9
Indonesia	168.4
Brazil	138.4
Japan	120.8
Bangladesh	101.5
Pakistan	99.2
Nigeria	79.7

Source: The Population Reference Bureau, Inc., 1985 World Population Data Sheet.

Q. But wasn't the current famine in Africa caused by rapid population growth?

A. In fact, the famine is a good example of this point. Hunger has always been a companion to poverty, and periodic famines occurred long before human population began its rapid increase. Even now, most experts in this area agree that the world could feed today's population—and a considerably larger number—if modern farming methods were used everywhere, if income were redistributed, if land reform policies were put into effect, if non-nutritious crops were replaced by nutritious crops, if waste and corruption were controlled.

Modern farming methods, to look at just one of the "ifs", depend on mechanization of planting and harvesting, oil, fertilizer, pesticides, special seeds, irrigation, and sound storage, transportation and

marketing systems. It takes a great deal of money and a great deal of planning and re-education to change a country's pattern of food production from traditional to modern methods. It also takes time.

In the most rapidly growing countries, population growth can reduce or eliminate food production gains resulting from modernization of farming (see table). Population growth may not cause hunger but it does increase the numbers of people that must be fed in a world where social justice and reorganization of farming methods do not operate fully.

In some cases, population growth may be quite directly related to a social problem. For example, some developing countries have made enormous progress in increasing the percentage of children enrolled in school. However, because of population growth during the same time period, the *number* of children not enrolled in school also increased. Similar observations could be made about jobs, housing and other human needs: population growth increases the absolute numbers whose needs must be met.

There is some evidence that high fertility may be an effect of poverty as well as a cause of it. Fertility is highest where there is not much hope of a better life, where people depend on their children for support in old age, where children make real contributions in agriculture, where education, especially for women, is lacking and where the status of women is low. It seems clear that economic, social and environmental conditions interact with population growth in a dynamic and complex way.

World Bank Photo by James Pickerell

Food Production in Africa did not keep up with population growth during the past decade.

Q. Why does it take so long to slow or stop population growth, even after birth rates go down?

A. Growth through natural increase occurs when births exceed deaths. For example, in the U.S., the birth rate in 1985 was 16 births per 1,000 people and the death rate was 9, yielding a net increase of 7 persons for every 1,000 persons in the U.S., or approximately 1.7 million additional persons for that year. This gap between births and deaths happened in spite of a very small average family size (technically, the "total fertility rate," an estimate of the number of births to a woman during her lifetime).

There were more births than deaths because there were so many more people in the younger age groups where births occur than in the older age groups where the majority of deaths occur. This disproportionately large number of young adults is, in turn, due to the years of high fertility following World War II known as the "Baby Boom." They are the large number of babies who are now grown up and having babies of their own. Even though these young people are having very small families—fewer than two children on the average—there are so many of them that births to this group still exceed the number of deaths in all age groups.

The point is that large numbers of young couples each having one or two children can still produce an extremely large total of births. This phenomenon is known as the "momentum of growth." It and immigration are the reasons that the U.S. is growing even though fertility is below replacement level (1.8 children per woman). It is also the reason that developing countries which have reduced their fertility rates will continue to produce far more births than deaths. This will continue until the large number of young adults resulting from previous high fertility have

Growth Rates of Food Production for Major World Regions

	Food Output			
	Total		Per Capita	
Region and Country Group	1960-70	1970-80	1960-70	1970-80
Developing Countries [a]	2.9	2.8	0.4	0.4
Africa	2.6	1.6	0.1	-1.1
Middle East	2.6	2.9	0.1	0.2
Latin America	3.6	3.3	0.1	0.2
Southeast Asia	2.8	3.8	0.3	1.4
Southern Europe	3.2	3.5	1.8	1.9
Industrial free market countries	2.3	2.0	1.3	1.1
Nonmarket industrial countries [b]	3.2	1.7	2.2	0.9
Total world	2.7	2.3	0.8	0.5

[a] Excluding China

[b] USSR, Poland, Bulgaria, Hungary, Czechoslovakia, East Germany

Source: The World Bank, World Development Report 1982 (New York: Oxford University Press, 1982), Table 5.1, p. 41. Reprinted with permission.

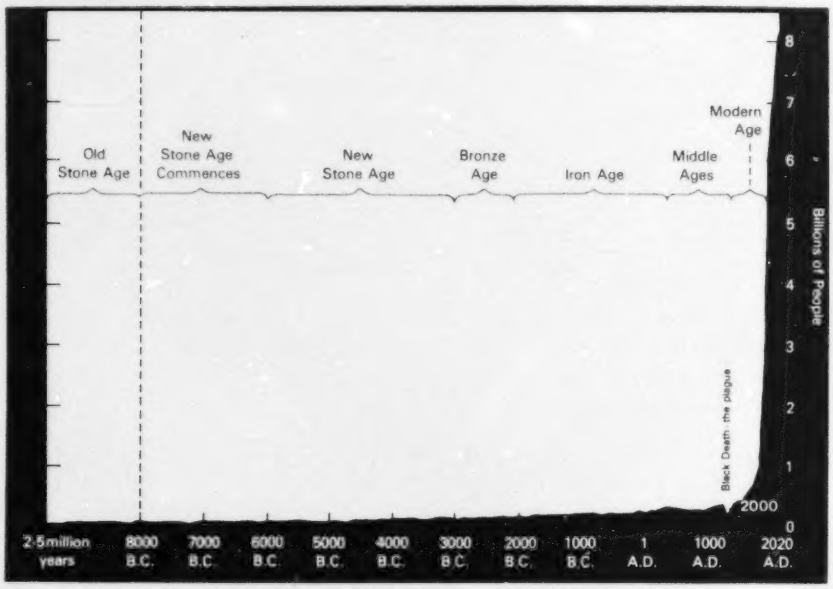
passed out of the childbearing years and the next and smaller generation of young adults reproduce at replacement level fertility.

Q. Which policies are most effective in reducing population growth?
A. In the last fifteen years birth rates have dropped, sometimes quite rapidly, in more than 30 developing countries. This is an encouraging sign to those governments which have identified rapid population growth as an obstacle to their development goals. Declines have occurred in settings which vary quite widely.

Research studies have found that programs which make family planning information and services widely available have the most immediate results and cost less than other programs. In traditional societies, family planning programs are most successful when they are supported by community leaders, those people who have a strong influence on a group's decision-making and on individual attitudes. The importance of this factor is reinforced by a recent re-analysis of the fertility decline in 19th century Europe. The study found that a change in cultural attitudes toward the acceptability of family limitation was as essential as the social and economic improvements that were occurring.

However, to reduce fertility to the level required to bring about slow—or no—growth of population, social and economic improvement is necessary as well. Couples living in extreme poverty have little reason to think that having fewer children would improve their marginal existence. Children may indeed represent their future security. Studies have found that when poor families achieve a certain level of income, there is a drop in fertility, perhaps because families see that their own actions can lead to a better life. People are less likely to think, "I must accept my fate," and planning, including family planning, becomes a new possibility. The availability of family planning services then can help translate new ideas about family size into reality.

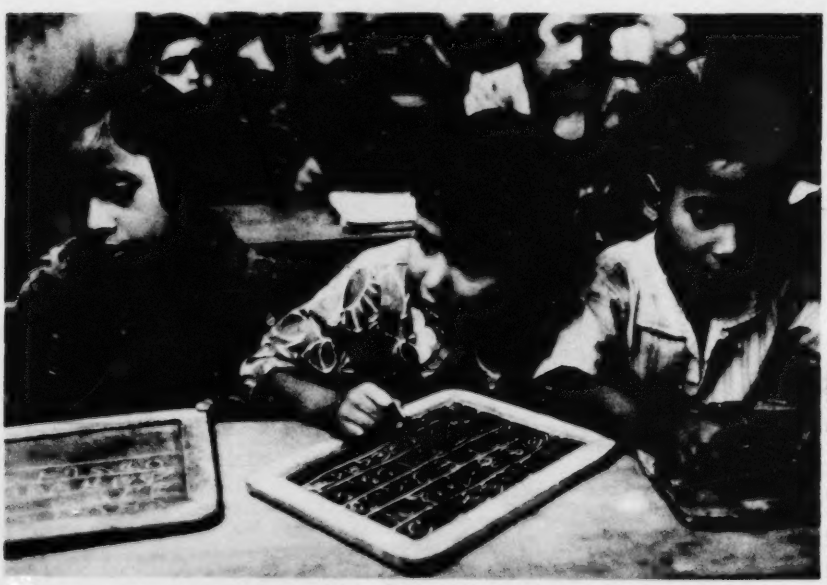
World Population Growth Through History



Of great importance is the status of women. Studies show that women who have completed primary school have fewer children than those with no education. Having an education usually means that women delay marriage, seek wage-paying jobs, learn about and have more favorable attitudes toward family planning, and have better communication with their husbands when they marry. Educated women have fewer infant deaths; high infant mortality is associated with high fertility.

Similarly, when women have wage-paying jobs, they tend to have fewer children (and conversely, women with few children find it easier to work). Unfortunately, as women in developing countries attempt to move into the paid labor force, they will be competing with men for scarce jobs. By the end of this century, there will be another billion people looking for jobs, a result of the high fertility of preceding years.

Immigration policies are also used to regulate population growth. Some countries openly encourage emigration to relieve crowding and unemployment. Other countries have policies to restrict the number of people who may enter and become citizens. The U.S., for example, recently has accepted about 550,000 immigrants annually, but many more enter



World Bank Photo by Ray Witlin

Girls who complete primary school are more likely to have smaller families.

illegally. The U.S. also accepts large numbers of refugees.

Q. What is happening in China, India, Mexico and other places associated with rapid population growth? What about developed countries?

A. China, India and Mexico are countries people think of as having rapid popuiation growth. However, birth rates in all these places have come down, although reducing population growth is still a major goal in these countries. Africa now has the highest birth rates in the world with Kenya the highest of all. In Kenya, women have an average of eight children.

China's drive to reduce population growth has been both vigorous and controversial. Its current policy to encourage a one-child family provides financial incentives and disincentives, such as generous pensions and priority in housing to parents who have only one child. It has also made efforts to change societal attitudes such as the disappointment at the birth of a girl baby. In a matter of a few decades China has already brought its birth rate down to 19 births per 1,000 people through community-based and free provision of all birth control methods, locally planned birth quotas enforced through peer pressure, and attempts to integrate women into all aspects of society. China has set a goal of reaching zero population growth by the year 2000. Its current rate of natural increase of 1.1 percent per year is calculated on a base population of about one billion people. That means almost 11.5 million more people each year.

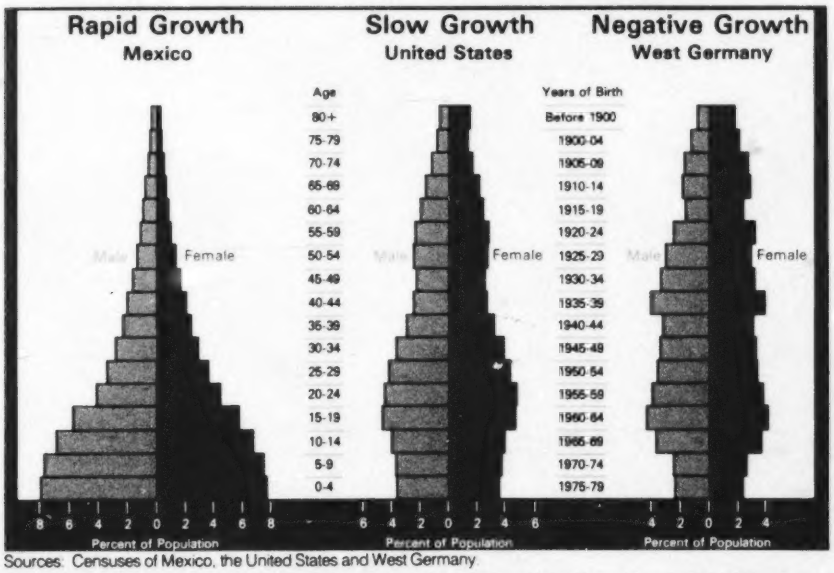
UN Photo 152,770 by John Isaac

The Chinese government has made great efforts to curb the nation's population growth by promoting the one-child family.

India has the world's oldest national family planning program, begun in 1952. Its population of 762.2 million is growing at 2.2 percent annually and if it continues, India's population will double in only 32 years. Although its rate of natural increase is considerably lower than Kenya's and most other African countries, it represents a disappointment to those who hoped to reduce population growth as an essential step in its plans for social and economic development. There were significant although modest reductions in the birth rate and family size in the 1960s and 1970s, but the decline in the birth rate stalled in 1976 as increasing numbers of women entered the childbearing ages. Mortality declined at the same pace, causing the growth rate to remain unchanged. The national family planning program has experienced some success recently with significant increases in the number of family planning acceptors, but in general, the low status of women, extreme poverty, logistical problems in delivering family planning services to a predominantly rural nation, and previous over-zealous attempts to impose population control measures are thought to be reasons the family planning program has not been more successful.

On the other hand, Mexico, Indonesia, Thailand, Hong Kong and Singapore, among others, are experiencing considerable success in reducing their birth

Three Patterns of Population Change



Sources: Censuses of Mexico, the United States and West Germany

Mexico's population pyramid is like that of many developing countries with rapid growth; it is broad at the base because of past high fertility. West Germany, on the other hand, must deal with a decreasing population, and more people at the older ages.

rates. Mexico, for example, changed its attitude toward population growth in the early 1970s from a pronatal one (encouraging large families) to one encouraging small families. It has established a large number of family planning clinics, and along with education and socioeconomic development, the result has been an unexpectedly large decline in fertility.

In the developed countries of Western Europe and North America and in Japan and Australia, fertility is very low. The total fertility rate for the continent of Europe, for example, is below replacement level. Several countries are no longer growing—Austria, West Germany, East Germany, and Luxembourg—and many others are close to a state of population equilibrium. This group must deal with other population problems such as providing social security and other services to the growing proportion of the population that is over 64 years of age, developing an equitable immigration policy, and solving environmental problems associated with per capita consumption of natural resources.

World Bank Photo by Ray Witlin

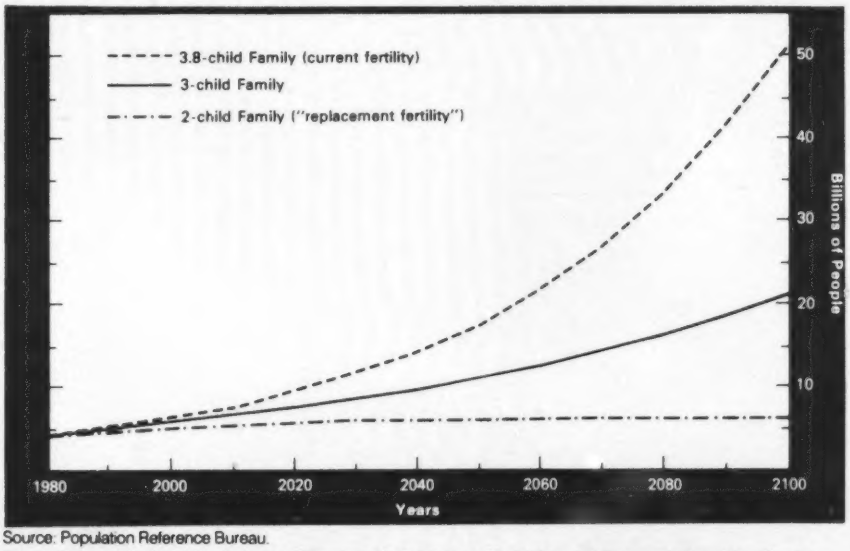
Hybridization and increased production of staples are just one aspect of economic and social development contributing to fertility decline.

Q. Given this rather complex picture, what conclusion can one draw about world population growth?

A. It seems that those who believe that rapid population growth is a serious threat to the worldwide quality of life can take some encouragement from the fact that developed countries have largely achieved replacement level fertility and that fertility is falling almost everywhere in the developing countries. However, one's optimism must be cautious. Rafael Salas of the the United Nations Fund for Population Activities notes:

> While the reversal of the trend in birth rates marks the beginning of a new epoch in the history of world population, it is essential in order to avoid falling into a state of complacency to point out certain caveats to this situation. First, the pattern of decline noted has been very uneven among countries and regions. Second, which is even more important, the decline in birth rates, however significant it might be, should not obscure the reality that it is occurring at an already very high level. This has important implications in terms of employment, provision of basic needs and the carrying capacity of the global system.
>
> But even with a lower growth rate of population during the coming two decades, these problems will multiply manifold by the year 2000. This is reflected in the growth in terms of population size of a number of countries. We have already entered an era of population "gigantism" and, by 2000, a number of countries will have to deal with three or more times the size of the populations they had in 1950. For instance, in 1950 only four countries (China, India, the United States and the USSR) had populations exceeding 100 million, but by the year 2000 the number of countries is expected to increase to 11. Not only that. By 2000 China and India alone will have combined populations close to 2 billion, whereas the total world population of 1950 was only 2.5 billion.*

Future Trends in World Population Growth



Source: Population Reference Bureau.

These three projections illustrate the differences in the future size of the world's population, if families have on average two, three, or 3.8 children.

It appears that those countries which have made the most significant strides in reducing fertility are the ones which have done so in the context of social and economic development. The success of population programs should reinforce the need for greater assistance in instituting or expanding the most carefully designed and effective programs. Whether or not population growth reaches the high, medium, or low projection made by the U.N. depends in large part on the world's recognition of the problem and its commitment to solving it.

*Source: Rafael Salas, "The World Population Crisis," a statement made to the National Press Club, Washington, D.C., 15 January, 1980. From *Reflections on Population*, New York: Pergamon Press, 1985; page 281.

1985 World Population Data Sheet

Prepared by
Mary Mederios Kent
and Carl Haub

	Population Estimate mid-1985 (millions)	Crude Birth Rate	Crude Death Rate	Natural Increase (annual, %)	Population Doubling Time (at current rate)	Population Projected to 2000 (millions)	Population Projected to 2020 (millions)	Infant Mortality Rate	Total Fertility Rate	% Under Age 15/Over Age 64	Life Expectancy at Birth	Urban Population (%)	Per Capita GNP (US$)	Total Area (1000's of sq. miles)/ Percent Cultivated
WORLD	**4,845**	**27**	**11**	**1.7**	**41**	**6,135**	**7,760**	**81**	**3.7**	**35/6**	**62**	**41**	**$2,760**	**51,720/11**
MORE DEVELOPED	**1,174**	**15**	**9**	**0.6**	**118**	**1,271**	**1,351**	**18**	**2.0**	**23/12**	**73**	**72**	**9,380**	**21,344/12**
LESS DEVELOPED	**3,671**	**31**	**11**	**2.0**	**34**	**4,863**	**6,409**	**90**	**4.2**	**39/4**	**58**	**31**	**700**	**30,375/10**
LESS DEVELOPED (Excl. China)	**2,629**	**36**	**12**	**2.4**	**29**	**3,666**	**5,121**	**101**	**5.0**	**41/4**	**56**	**34**	**880**	**26,670/10**
AFRICA	**551**	**45**	**16**	**2.9**	**24**	**869**	**1,433**	**110**	**6.3**	**45/3**	**50**	**31**	**750**	**11,711/6**
NORTHERN AFRICA	128	41	12	2.9	24	190	282	97	6.0	43/4	56	42	1,190	3,291/4
Algeria	22.2	45	12	3.3	21	35.5	53.5	109	7.0	46/4	60	52	2,400	919.6/3
Egypt	48.3	37	10	2.7	26	67.3	94.2	80	5.3	40/4	57	44	700	386.7/2
Libya	4.0	46	11	3.5	20	6.7	11.5	92	7.2	46/2	58	64	7,500	679.4/1
Morocco	24.3	41	12	2.9	24	37.5	58.8	99	5.9	46/3	58	42	750	172.4/19
Sudan	21.8	46	17	2.9	24	33.2	51.3	118	6.6	45/3	48	21	400	967.5/5
Tunisia	7.2	33	10	2.3	30	9.7	12.9	85	4.9	40/4	61	52	1,290	63.2/31
WESTERN AFRICA	**166**	**48**	**18**	**3.0**	**23**	**272**	**454**	**118**	**6.4**	**47/3**	**48**	**29**	**580**	**2,372/10**
Benin	4.0	51	23	2.8	25	6.3	10.9	149	7.0	49/5	43	39	290	43.5/16
Burkina Faso (Upper Volta)	6.9	48	22	2.6	27	10.5	17.7	149	6.5	44/3	44	8	180	105.9/10
Cape Verde	0.3	36	9	2.7	26	0.4	0.5	77	4.5	31/4	57	20	360	1.6/10
Gambia	0.8	49	29	2.0	35	1.0	1.6	193	6.4	43/3	35	21	290	4.4/14
Ghana	14.3	47	15	3.2	22	22.9	36.5	107	6.5	46/3	52	40	320	92.1/12
Guinea	6.1	47	23	2.4	29	8.9	14.3	147	6.2	43/3	40	22	300	94.9/6
Guinea-Bissau	0.9	41	22	1.9	36	1.2	1.8	143	5.4	44/5	43	27	180	13.9/8
Ivory Coast	10.1	46	18	2.8	25	16.0	29.0	122	6.7	45/3	47	42	720	124.5/12
Liberia	2.2	46	15	3.1	22	3.7	6.9	112	6.7	47/3	49	39	470	43.0/3
Mali	7.7	49	21	2.8	25	11.4	19.2	137	6.7	46/3	42	18	150	478.8/2
Mauritania	1.9	50	21	2.9	24	3.0	5.3	137	6.9	46/3	44	35	440	398.0/z
Niger	6.5	51	23	2.8	25	10.5	18.4	140	7.1	47/3	43	16	240	489.2/3
Nigeria	91.2	48	17	3.1	22	156.5	258.0	105	6.3	48/2	50	28	760	356.7/33
Senegal	6.7	50	19	3.1	22	10.5	17.9	141	7.1	45/3	43	42	440	75.7/27
Sierra Leone	3.6	47	30	1.7	41	4.9	7.3	200	6.1	41/3	34	28	380	27.7/25
Togo	3.0	45	17	2.8	25	4.7	8.3	113	6.1	44/3	49	20	280	21.9/25
EASTERN AFRICA	**159**	**48**	**17**	**3.1**	**23**	**258**	**452**	**109**	**6.8**	**47/3**	**49**	**17**	**300**	**2,454/7**
Burundi	4.6	48	21	2.7	26	7.0	10.4	137	6.4	44/3	44	7	240	10.7/47
Comoros	0.5	46	16	3.0	23	0.7	1.0	88	6.3	46/3	50	19	–	0.8/42
Djibouti	0.3	46	20	2.6	27	0.4	0.7	122	6.8	45/3	47	74	–	8.5/0
Ethiopia	36.0	43	22	2.1	33	54.8	88.5	142	6.7	45/3	43	15	140	471.8/11
Kenya	20.2	54	13	4.1	17	37.3	68.0	82	8.0	52/2	53	16	340	225.0/4
Madagascar	10.0	45	17	2.8	25	15.6	26.8	67	6.4	44/3	50	22	290	226.7/5
Malawi	7.1	52	20	3.2	22	11.4	20.5	165	6.9	48/2	45	12	210	45.7/20
Mauritius	1.0	21	7	1.5	47	1.3	1.6	26.9	2.7	33/4	67	43	1,150	0.7/58
Mozambique	13.9	45	17	2.8	25	21.4	36.0	110	6.1	46/5	49	13	–	309.5/4
Reunion	0.5	23	6	1.7	42	0.7	0.8	14	2.6	33/5	66	41	3,710	1.0/22
Rwanda	6.3	53	17	3.6	19	10.7	20.3	10	7.3	46/3	49	5	270	10.2/39
Seychelles	0.1	26	7	1.9	37	0.1	0.1	14.4	4.1	37/7	70	37	2,400	0.1/21
Somalia	6.5	47	21	2.6	27	9.1	14.1	143	6.5	44/4	43	34	250	246.2/2
Tanzania	21.7	50	15	3.5	20	37.3	70.7	98	7.1	46/4	50	14	240	364.9/6
Uganda	14.7	50	15	3.5	20	24.5	43.7	94	6.9	48/2	52	14	220	91.1/25
Zambia	6.8	48	15	3.3	21	10.9	20.7	101	6.8	47/3	51	43	580	290.6/7
Zimbabwe	8.6	47	12	3.5	20	14.5	28.1	70	6.6	48/3	56	24	740	150.8/7
MIDDLE AFRICA	**62**	**45**	**18**	**2.7**	**26**	**95**	**163**	**119**	**6.1**	**44/3**	**48**	**34**	**420**	**2,553/4**
Angola	7.9	47	22	2.5	28	12.0	20.2	149	6.4	45/3	42	24	–	481.4/3
Cameroon	9.7	44	18	2.6	27	14.4	23.1	117	6.5	43/4	48	42	800	183.6/15

	Population Estimate mid-1985 (millions)	Crude Birth Rate	Crude Death Rate	Natural Increase (annual, %)	Population Doubling Time (at current rate)	Population Projected to 2000 (millions)	Population Projected to 2020 (millions)	Infant Mortality Rate	Total Fertility Rate	% Under Age 15/Over Age 64	Life Expectancy at Birth	Urban Population (%)	Per Capita GNP (US$)	Total Area (1000's of sq. miles)/ Percent Cultivated
Central African Republic	2.7	46	22	2.4	29	3.9	6.3	143	5.9	43/4	43	41	280	240.5/3
Chad	5.2	44	23	2.1	33	7.6	12.4	143	5.9	42/4	43	22	–	495.8/2
Congo	1.7	44	19	2.5	28	2.6	4.5	124	6.0	44/3	47	48	1,230	132.0/2
Equatorial Guinea	0.3	43	21	2.2	32	0.4	0.6	137	5.7	41/4	44	60	–	10.8/8
Gabon	1.0	35	18	1.7	41	1.6	2.8	112	4.7	36/6	49	41	4,250	103.3/2
Sao Tome and Principe	0.1	39	10	2.9	24	0.1	0.1	69.2	5.4	38/6	65	32	310	0.4/38
Zaire	33.1	45	16	2.9	24	52.4	93.3	106	6.1	45/3	50	34	160	905.6/3
SOUTHERN AFRICA	**37**	**36**	**14**	**2.2**	**31**	**53**	**82**	**94**	**5.2**	**39/4**	**53**	**52**	**2,280**	**1,040/6**
Botswana	1.1	50	13	3.7	19	1.8	3.5	79	6.6	50/2	54	16	920	231.8/2
Lesotho	1.5	42	16	2.6	27	2.3	3.7	110	5.8	42/4	49	6	470	11.7/10
Namibia	1.1	45	17	2.8	25	1.7	2.8	115	5.9	44/3	48	51	1,760	318.3/1
South Africa	32.5	35	14	2.1	33	46.5	70.1	92	5.1	38/4	54	56	2,450	471.4/11
Swaziland	0.6	48	17	3.1	22	1.0	1.8	129	6.5	46/3	47	26	890	6.7/8
EUROPE	**492**	**13**	**10**	**0.3**	**240**	**509**	**507**	**15**	**1.8**	**22/13**	**73**	**73**	**8,200**	**1,881/29**
NORTHERN EUROPE	**83**	**13**	**11**	**0.1**	**465**	**84**	**83**	**9**	**1.8**	**21/15**	**74**	**75**	**9,680**	**608/11**
Denmark	5.1	10	11	-0.1	–	5.0	4.6	8.2	1.4	20/15	74	83	11,490	16.6/62
Finland	4.9	14	9	0.5	154	5.0	4.9	6.0	1.7	20/12	74	60	10,440	130.1/7
Iceland	0.2	19	7	1.2	60	0.3	0.3	7.1	2.2	27/10	77	89	10,270	39.8/z
Ireland	3.6	19	9	1.0	71	4.3	5.8	10.5	3.0	31/11	73	56	4,810	27.1/14
Norway	4.2	12	10	0.2	365	4.2	4.1	7.8	1.7	21/15	76	71	13,820	125.2/3
Sweden	8.3	11	11	0.0	6,930	7.9	7.4	7.0	1.6	19/16	76	83	12,400	173.7/7
United Kingdom	56.4	13	12	0.1	630	57.0	55.9	10.1	1.8	20/15	73	76	9,050	94.5/29
WESTERN EUROPE	**155**	**12**	**11**	**0.1**	**729**	**154**	**144**	**10**	**1.6**	**20/14**	**74**	**83**	**10,870**	**383/30**
Austria	7.5	12	12	0.0	–	7.5	7.3	12.0	1.6	20/15	73	55	9,210	32.4/19
Belgium	9.9	12	11	0.1	1,155	9.8	9.2	11.3	1.6	20/14	73	95	9,160	11.7/25
France	55.0	14	10	0.4	198	56.8	57.5	9.0	1.8	22/13	75	73	10,390	211.2/34
Germany, West	61.0	10	11	-0.2	–	58.4	49.9	10.1	1.3	17/15	74	94	11,420	96.0/30
Luxembourg	0.4	12	11	0.0	3,465	0.4	0.3	11.2	1.6	19/13	72	78	12,190	1.0/–
Netherlands	14.5	12	8	0.4	192	14.7	14.0	8.4	1.5	22/12	76	88	9,910	14.4/23
Switzerland	6.5	11	9	0.2	330	6.4	5.9	7.7	1.6	19/14	76	58	16,390	15.9/10
EASTERN EUROPE	**112**	**16**	**11**	**0.5**	**140**	**120**	**127**	**19**	**2.1**	**24/11**	**71**	**62**	**–**	**382/45**
Bulgaria	8.9	14	11	0.2	315	9.4	9.3	16.8	2.0	22/12	72	65	–	42.8/37
Czechoslovakia	15.5	15	12	0.3	248	16.5	17.3	15.6	2.1	25/11	71	74	–	49.4/40
Germany, East	16.7	14	13	0.1	990	16.9	16.8	10.7	1.8	19/15	72	77	–	41.8/46
Hungary	10.7	12	14	-0.2	–	10.9	10.5	19.0	1.8	22/13	70	54	2,150	35.9/57
Poland	37.3	20	10	1.0	68	41.1	44.9	19.3	2.4	25/10	71	59	–	120.7/47
Romania	22.8	15	10	0.5	131	25.6	28.5	28.0	2.2	27/10	71	49	–	91.7/44
SOUTHERN EUROPE	**143**	**13**	**9**	**0.4**	**165**	**151**	**153**	**18**	**1.9**	**24/12**	**73**	**69**	**4,810**	**508/37**
Albania	3.0	28	6	2.2	32	4.0	5.3	43	3.6	35/5	71	34	–	11.1/25
Greece	10.1	14	9	0.5	154	10.9	11.6	14.9	2.1	22/13	74	70	3,970	50.9/30
Italy	57.4	11	10	0.1	990	57.8	54.8	12.4	1.6	21/14	74	72	6,350	116.3/41
Malta	0.4	15	8	0.7	103	0.4	0.4	14.1	2.1	24/9	72	85	3,710	0.1/44
Portugal	10.3	14	9	0.5	136	11.1	12.1	19.8	2.0	26/11	71	30	2,190	35.6/39
Spain	38.5	13	7	0.6	116	41.7	43.4	9.6	2.0	26/11	74	91	4,800	194.9/41
Yugoslavia	23.1	17	10	0.7	99	24.6	25.0	31.7	2.1	24/9	70	46	2,570	98.8/31
USSR	**278**	**20**	**10**	**1.0**	**71**	**316**	**344**	**32**	**2.4**	**25/10**	**69**	**64**	**6,350**[2]	**8,649/10**
NORTH AMERICA	**264**	**15**	**8**	**0.7**	**99**	**297**	**330**	**10**	**1.8**	**22/12**	**75**	**74**	**13,880**	**7,399/12**
Canada	25.4	15	7	0.8	90	29.4	33.1	9.1	1.7	22/10	75	76	12,000	3,851.8/5
United States	238.9	16	9	0.7	100	268.0	296.6	10.5	1.8	22/12	75	74	14,090	3,615.1/20

A dash (—) is printed where no reasonable estimate is available. z indicates that a statistic rounds to zero. See the Glossary on page 12 for definitions of terms used in the Data Sheet.

	Population Estimate mid-1985 (millions)	Crude Birth Rate	Crude Death Rate	Natural Increase (annual, %)	Population Doubling Time (at current rate)	Population Projected to 2000 (millions)	Population Projected to 2020 (millions)	Infant Mortality Rate	Total Fertility Rate	% Under Age 15/Over Age 64	Life Expectancy at Birth	Urban Population (%)	Per Capita GNP (US$)	Total Area (1000's of sq. miles)/ Percent Cultivated
ASIA	**2,829**	**28**	**10**	**1.8**	**39**	**3,562**	**4,340**	**87**	**3.7**	**37/4**	**60**	**27**	**940**	**10,659/17**
ASIA (Excl. China)	**1,787**	**33**	**12**	**2.2**	**32**	**2,365**	**3,052**	**103**	**4.6**	**39/4**	**57**	**31**	**1,360**	**6,954/20**
SOUTHWEST ASIA	**114**	**39**	**11**	**2.8**	**25**	**171**	**253**	**94**	**5.9**	**42/4**	**61**	**53**	**3,500**	**1,754/10**
Bahrain	0.4	32	5	2.7	26	0.7	1.0	37	4.6	33/2	67	81	10,360	0.2/3
Cyprus	0.7	21	9	1.2	57	0.7	0.9	17	2.5	25/10	74	53	3,720	3.6/47
Gaza	0.5	46	8	3.8	18	0.7	0.9	109	6.8	48/3	55	90	–	0.1/45
Iraq	15.5	46	13	3.3	21	24.9	39.3	72	6.7	49/4	59	68	–	167.9/13
Israel	4.2	24	6	1.8	39	5.2	6.6	14.2	3.1	33/9	74	87	5,360	8.0/20
Jordan	3.6	46	8	3.8	18	6.6	12.3	63	7.4	51/3	64	60	1,710	37.7/4
Kuwait	1.9	35	3	3.2	22	3.1	4.7	22.8	6.2	40/1	71	90	18,180	6.9/z
Lebanon	2.6	29	9	2.1	34	3.5	5.1	48	3.8	38/5	65	76	–	4.0/29
Oman	1.2	47	16	3.1	22	1.9	3.0	122	7.1	44/3	50	7	6,240	82.0/z
Qatar	0.3	31	3	2.8	25	0.5	0.7	45	6.8	33/2	71	86	21,170	4.2/z
Saudi Arabia	11.2	42	12	3.0	23	18.9	30.6	103	7.2	43/3	56	70	12,180	830.0/1
Syria	10.6	47	7	3.9	18	18.1	29.5	57	7.3	47/4	64	47	1,680	71.5/31
Turkey	52.1	35	10	2.5	28	71.3	97.0	110	5.1	39/5	63	45	1,230	301.4/35
United Arab Emirates	1.3	27	4	2.3	30	1.9	2.5	45	5.9	26/2	71	81	21,340	32.3/z
Yemen, North	6.1	48	21	2.7	26	9.1	14.0	154	6.8	49/3	44	15	510	75.3/14
Yemen, South	2.1	48	19	2.9	24	3.3	5.2	138	6.9	49/4	47	37	510	128.6/1
MIDDLE SOUTH ASIA	**1,058**	**37**	**13**	**2.3**	**30**	**1,412**	**1,834**	**120**	**5.0**	**41/3**	**52**	**24**	**260**	**2,620/33**
Afghanistan	14.7	48	23	2.5	28	24.3	34.2	205	6.9	45/4	37	16	–	250.0/12
Bangladesh	101.5	45	17	2.8	25	146.2	206.6	133	6.4	47/3	48	15	130	55.6/63
Bhutan	1.4	38	18	2.0	35	1.9	2.5	144	5.5	40/3	46	5	–	18.1/2
India	762.2	34	13	2.2	32	990.6	1,245.6	118	4.5	39/3	53	23	260	1,269.3/52
Iran	45.1	41	10	3.0	23	65.5	90.8	101	5.6	43/4	60	50	–	636.3/8
Maldives	0.2	43	13	3.0	23	0.3	0.4	108	6.5	45/2	52	20	–	0.1/10
Nepal	17.0	42	18	2.4	29	23.7	33.0	144	6.3	41/3	46	6	170	54.4/17
Pakistan	99.2	43	15	2.7	25	139.0	195.7	120	6.4	44/3	50	29	390	310.4/25
Sri Lanka	16.4	27	6	2.1	33	20.8	25.4	34.4	3.7	35/4	68	22	330	25.3/33
SOUTHEAST ASIA	**404**	**32**	**10**	**2.2**	**31**	**542**	**702**	**79**	**4.5**	**40/3**	**59**	**24**	**710**	**1,735/17**
Brunei	0.2	28	4	2.4	29	0.3	0.4	15	4.4	38/3	71	64	21,140	2.2/2
Burma	36.9	37	15	2.2	32	51.6	72.2	94	5.3	42/4	55	24	180	261.2/15
Democratic Kampuchea	6.2	32	11	2.1	33	8.4	10.2	160	4.7	33/3	43	16	–	69.9/17
East Timor	0.7	48	23	2.5	28	0.9	1.1	183	5.8	35/3	40	12	–	5.7/5
Indonesia	168.4	34	12	2.2	32	226.9	293.2	87	4.4	41/3	55	22	560	735.4/10
Laos	3.8	41	18	2.3	30	5.3	7.5	122	6.0	43/3	44	16	–	91.4/4
Malaysia	15.7	29	7	2.2	32	20.7	26.1	29	4.0	37/4	67	32	1,870	127.3/13
Philippines	56.8	32	7	2.5	28	77.7	101.5	50	4.8	43/3	64	37	760	115.8/39
Singapore	2.6	16	5	1.1	64	3.0	3.2	9.4	1.7	25/5	71	100	6,620	0.2/10
Thailand	52.7	25	6	1.9	36	67.6	85.0	51	3.9	38/3	63	17	810	198.5/37
Vietnam	60.5	34	9	2.5	28	79.5	102.2	90	4.7	41/4	66	19	–	127.2/19
EAST ASIA	**1,252**	**18**	**8**	**1.1**	**65**	**1,467**	**1,550**	**35**	**2.1**	**32/5**	**66**	**29**	**1,360**	**4,551/10**
China	1,042.0	19	8	1.1	65	1,197.0	1,288.0	38	2.1	34/5	65	21	290	3,705.4/11
Hong Kong	5.5	15	5	1.0	67	6.7	7.6	9.9	2.0	24/7	76	92	6,000	0.4/8
Japan	120.8	13	6	0.6	110	128.1	127.2	6.2	1.8	22/10	77	76	10,100	143.7/13
Korea, North	20.1	31	7	2.3	30	27.3	35.8	32	4.0	38/4	65	64	–	46.5/19
Korea, South	42.7	23	6	1.7	41	51.7	59.4	29	2.6	32/4	66	57	2,010	38.0/22
Macao	0.3	25	7	1.8	38	0.4	0.5	38	3.8	31/5	68	97	2,560	z/0
Mongolia	1.9	34	7	2.7	26	2.7	3.7	50	4.8	41/3	65	51	–	604.2/1
Taiwan	19.2	21	5	1.6	44	23.4	28.0	8.9	2.3	31/5	73	71	–	12.5/25

A dash (—) is printed where no reasonable estimate is available. z indicates that a statistic rounds to zero. See the Glossary on page 12 for definitions of terms used in the Data Sheet.

	Population Estimate mid-1985 (millions)	Crude Birth Rate	Crude Death Rate	Natural Increase (annual, %)	Population Doubling Time (at current rate)	Population Projected to 2000 (millions)	Population Projected to 2020 (millions)	Infant Mortality Rate	Total Fertility Rate	% Under Age 15/Over Age 64	Life Expectancy at Birth	Urban Population (%)	Per Capita GNP (US$)	Total Area (1000's of sq. miles)/ Percent Cultivated
LATIN AMERICA	**406**	**31**	**8**	**2.3**	**30**	**554**	**752**	**62**	**4.2**	**38/5**	**65**	**66**	**$1,890**	**7,935/9**
MIDDLE AMERICA	**105**	**33**	**6**	**2.7**	**26**	**151**	**211**	**55**	**4.9**	**43/4**	**65**	**63**	**1,940**	**963/12**
Belize	0.2	32	7	2.5	28	0.2	0.3	27	4.5	44/4	70	50	1.140	8.9/2
Costa Rica	2.6	31	4	2.7	26	3.6	4.8	19.3	3.5	37/4	73	48	1.020	19.6/13
El Salvador	5.1	28	6	2.1	33	7.8	12.4	42.2	5.6	45/3	65	39	710	8.1/34
Guatemala	8.0	43	8	3.5	20	12.2	19.7	62.4	6.1	46/3	59	39	1.120	42.0/16
Honduras	4.4	44	10	3.4	20	7.1	12.2	82	6.5	47/3	60	37	670	43.3/16
Mexico	79.7	32	6	2.6	27	112.8	150.7	53	4.7	42/4	66	70	2.240	761.6/12
Nicaragua	3.0	44	10	3.4	20	4.9	7.8	76	5.9	47/3	60	53	900	50.2/10
Panama	2.0	25	5	2.0	34	2.7	3.5	26	3.5	38/4	71	49	2.070	29.8/8
CARIBBEAN	**31**	**25**	**8**	**1.8**	**39**	**39**	**51**	**55**	**3.3**	**35/6**	**67**	**54**	**–**	**92/26**
Antigua and Barbuda	0.1	15	5	1.0	67	0.1	0.1	11.1	2.4	28/6	66	34	1.730	0.2/18
Bahamas	0.2	24	5	1.9	37	0.3	0.3	24.7	2.5	38/4	69	65	4.060	5.4/1
Barbados	0.3	18	8	1.0	72	0.3	0.3	14.2	2.0	28/10	71	42	3.930	0.2/77
Cuba	10.1	17	6	1.1	64	11.6	13.1	16.8	1.8	29/8	73	70	–	44.2/28
Dominica	0.1	22	5	1.7	40	0.1	0.1	12.6	3.4	41/6	65	–	970	0.3/23
Dominican Republic	6.2	33	8	2.5	28	8.4	11.5	64	4.1	41/3	63	52	1.380	18.8/30
Grenada	0.1	25	7	1.8	39	0.1	0.2	15.4	2.9	36/6	71	–	990	0.1/41
Guadeloupe	0.3	20	7	1.4	51	0.4	0.4	23	2.6	31/7	70	46	–	0.7/22
Haiti	5.8	36	13	2.3	30	8.4	14.1	108	5.5	44/3	53	28	320	10.7/32
Jamaica	2.3	28	6	2.2	32	2.8	3.5	28	3.4	37/6	70	54	1.300	4.2/24
Martinique	0.3	18	7	1.1	62	0.3	0.4	20	2.4	28/8	71	71	4.270	0.4/17
Netherlands Antilles	0.3	19	6	1.3	53	0.3	0.4	26	2.9	33/5	71	66	–	0.4/8
Puerto Rico	3.3	20	6	1.3	52	3.8	4.7	16.0	2.7	32/8	73	67	2.890	3.4/15
St. Kitts-Nevis	0.04	29	11	1.8	39	0.05	0.05	42.8	3.6	37/10	64	45	820	0.1/0
Saint Lucia	0.1	31	6	2.5	28	0.1	0.2	26.1	4.2	50/5	69	40	1.060	0.2/27
St. Vincent and the Grenadines	0.1	26	6	2.0	35	0.1	0.2	46.8	4.0	44/5	65	–	860	0.1/50
Trinidad and Tobago	1.2	25	7	1.9	37	1.5	1.7	28	2.9	34/6	70	23	6.900	2.0/31
TROPICAL SOUTH AMERICA	**225**	**32**	**8**	**2.4**	**29**	**308**	**422**	**70**	**4.2**	**38/4**	**63**	**66**	**1,860**	**5,446/7**
Bolivia	6.2	42	16	2.7	26	9.5	17.0	124	6.3	44/3	51	46	510	424.2/3
Brazil	138.4	31	8	2.3	30	187.1	251.3	71	4.0	37/4	63	68	1.890	3.286.5/9
Colombia	29.4	28	7	2.1	33	39.0	50.6	53	3.6	37/4	64	67	1.410	439.7/5
Ecuador	8.9	35	8	2.7	26	13.2	20.0	70	5.0	42/4	64	45	1.430	109.5/9
Guyana	0.8	28	6	2.2	31	0.9	1.2	35	3.3	37/4	68	32	520	83.0/2
Paraguay	3.6	35	7	2.8	25	5.3	7.8	45	4.9	42/4	65	39	1.410	157.0/5
Peru	19.5	35	10	2.5	28	27.7	38.3	99	5.2	41/4	59	65	1.040	496.2/3
Suriname	0.4	28	8	2.0	34	0.5	0.6	31	4.1	43/5	69	66	3.520	63.0/2
Venezuela	17.3	33	6	2.7	25	24.7	35.4	39	4.1	41/3	69	76	4.100	352.1/4
TEMPERATE SOUTH AMERICA	**46**	**24**	**8**	**1.6**	**44**	**56**	**67**	**32**	**3.1**	**30/8**	**70**	**83**	**2,020**	**1,433/12**
Argentina	30.6	24	8	1.6	44	37.2	45.6	35.3	3.4	30/8	70	83	2.030	1.068.3/13
Chile	12.0	24	6	1.8	39	14.9	18.1	23.6	2.6	32/6	70	83	1.870	292.3/7
Uruguay	3.0	18	9	0.9	77	3.4	3.8	33.2	2.8	27/11	69	84	2.490	68.0/8
OCEANIA	**24**	**21**	**8**	**1.2**	**56**	**28**	**32**	**39**	**2.7**	**29/8**	**71**	**71**	**8,570**	**3,286/6**
Australia	15.8	16	7	0.9	82	17.2	18.4	10.3	1.9	25/10	75	86	10.780	2.967.9/6
Fiji	0.7	31	6	2.5	28	0.8	0.9	28.8	3.6	37/3	62	37	1.790	7.1/13
French Polynesia	0.2	32	6	2.6	27	0.2	0.3	23	3.9	46/2	62	57	8.190	1.5/19
New Caledonia	0.2	25	6	2.0	35	0.2	0.2	11	3.6	36/4	64	61	7.790	7.4/1
New Zealand	3.3	16	8	0.8	90	3.6	4.0	12.5	1.9	27/10	74	83	7.410	103.7/2
Papua-New Guinea	3.3	40	14	2.7	26	4.6	6.4	98	6.0	44/4	53	13	790	178.3/1
Samoa, Western	0.2	34	8	2.7	26	0.2	0.3	49	4.9	40/5	65	22	–	1.1/43
Solomon Islands	0.3	43	12	3.2	22	0.4	0.7	86	7.2	48/3	57	9	640	11.0/2
Vanuatu	0.1	40	13	2.8	25	0.2	0.3	98	6.0	45/2	54	18	–	5.7/6

Glossary of Population and Development Terms

Birth Rate (or Crude Birth Rate). The annual number of births per 1,000 population. Not to be confused with the 'growth rate.'

Death Rate (or Crude Death Rate). The annual number of deaths per 1,000 population.

Demography. The scientific study of human populations, including their size, composition, distribution, density, growth, and other demographic and socioeconomic characteristics, and the causes and consequences of changes in these factors.

Dependency Ratio. The ratio of the economically dependent part (arbitrarily defined as those under age 15 and over age 64) of the population to the productive part (those in the "working" ages of 15-64).

Developed (or More Developed) Countries. Those countries which have higher levels of per capita income, industrialization and modernization. The "more developed" region of the world, according to the United Nations, includes all of Europe, Canada, the United States, Australia, Japan, New Zealand and the USSR.

Developing (or Less Developed) Countries. Those countries which have lower levels of per capita income, industrialization and modernization.

Doubling Time. The number of years required for a population of an area to double its present size, given the current rate of population growth. The estimate for 'doubling time' is not intended to forecast the actual doubling of any population.

Growth Rate. The rate at which a population is increasing (or decreasing) in a given year due to natural increase and net migration (immigration minus emigration), expressed as a percentage of the base population.

Infant Mortality Rate. The annual number of deaths to infants under one year of age per 1,000 live births in a given year.

Life Expectancy. The average number of years a person can be expected to live under current mortality conditions. Most commonly cited as life expectancy at birth.

Natural Increase. The surplus (or deficit) of births over deaths in a population in a given time period.

Population Momentum or Momentum of Growth. The tendency for population growth to continue beyond the time that replacement level fertility has been achieved because of a relatively high concentration of people in the childbearing ages.

Population Projection. Computation of future changes in population numbers, given certain assumptions about future trends in the rates of fertility, mortality and migration. Demographers often issue low, medium and high projections of the same population, based on different assumptions of how these rates will change in the future.

Replacement Level Fertility. The level of fertility at which couples replace themselves, that is, a total fertility rate of 2.1 children per family (2 children to replace the parents and .1 child to account for deaths). It can be as high as 2.5 in countries with high mortality.

Total Fertility Rate (TFR). The average number of children that would be born to each woman if each were to live through her childbearing lifetime bearing children at the same rate as women of those ages actually did in a given year.

Urban Population. The percentage of total population living in areas termed urban by that country.

Zero Population Growth. A population in equilibrium with a growth rate of zero, achieved when births plus immigration equal deaths plus emigration.

Source: Arthur Haupt and Thomas T. Kane, *Population Handbook* (Population Reference Bureau, Inc., Washington, D.C. 1978).

Checking the Facts

Using the information in the essay, charts and tables, answer the following questions.

1. What is the population of the world in 1985? _____

2. What are the ten most populous countries?

1) _____ 2) _____ 3) _____ 4) _____ 5) _____
6) _____ 7) _____ 8) _____ 9) _____ 10) _____

3. Which is the most populous continent? _____

4. In 1950, what percentage of the world's people lived in urban areas? ____% What percentage of people lived in urban areas in 1985? ____% In 2020? ____%

5. If urban growth rates continue, how many cities will there be in the year 2000 of over 10 million people? ____

6. If the world's population continues to grow at 1.7 percent annually, when will it double in size? _____

7. Why will more people be added annually to the world's population at the end of this century than in 1985, even though the growth rate will have decreased from 1.7 to 1.5 percent by that time (according to United Nations estimates)? _____

_____

8. When will the world's population stop growing and how large is it projected to be at that time (use the U.N. medium variant)? _____ _____

9. Is the term "population explosion" accurate? Why or why not?

_____

10. How does mortality decline in the developing countries today differ from the experience in developed countries?

_____

_____

11. What are some of the problems associated with rapid population growth? _____

_____

_____

12. Why does it take so long to slow or stop population growth even after replacement level fertility has been achieved?

_____

_____

_____

13. Which policies work best in reducing population growth?

_____

_____

14. Name some developing countries where fertility reduction programs have been successful.

_____

_____

15. Which countries have populations which are no longer growing?

_____

(over)

Beyond the Facts

Behind the world population facts and trends are a variety of opinions about population change (particularly population growth) and its consequences. Below is a list of opinion- or value-related questions. There is no one correct answer to any of them—your answer will depend on your own values. The questions below may be used as the basis for a research paper, a debate, a survey of students in your class, or a small group discussion in which the group members must reach a consensus on the answer.

a. Should aid be given to developing countries for industrialization or for food and population programs?

b. Will developing countries bring down their fertility in the same manner as the developed countries did a century or so earlier?

c. Should countries in the developed world try to increase their fertility?

d. Should the countries with slow-growing or non-growing populations have policies of unlimited immigration ("open door" policies)?

e. What kinds of national population policies do you consider unethical or politically unworkable?

f. Should developed countries have population policies?

g. How will population growth or change affect your future? Include the benefits and drawbacks.

Scanning the World Population Data Sheet

Find the answers to the following questions on the 1985 World Population Data Sheet (pages 8-11).

1. Which country in the world is growing at the fastest rate? _____ Which country is growing at the second fastest rate? _____

2. Most people know that China and India have the largest populations in the world. Which of these two countries adds more people to its population annually? (Hint: Calculate this by applying the rate of natural increase to the population of the country.) _____ How many people does each country add annually? China: _____ India: _____

3. Which country will have the largest population in the year 2000? _____ In 2020? _____

4. The ten countries with the largest populations in 1985 will also have, if current rates continue, the largest populations in the year 2020. However, they will not all be in the same order. List in order of diminishing size the ten most populous countries in the year 2020. Circle the ones which changed their rank.
1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____
7. _____ 8. _____ 9. _____ 10. _____

5. The total fertility rate (TFR) is the average number of children women would have if they maintained the current level of childbearing throughout their reproductive years. Which country has the highest TFR and what is it? _____ _____ Which country has the lowest TFR and what is it? _____ _____

6. The infant mortality rate measures the number of deaths each year to infants under one year of age per 1,000 live births. Which country has the highest infant mortality rate and what is it? _____ _____ Which country has the lowest infant mortality rate and what is it? _____ _____

7. Which country has the "youngest" population, that is, the highest proportion of population under age 15? _____ Which country has the "oldest" population, that is, the highest proportion of population over age 64? _____

8. In which countries are people expected to live the longest? _____ _____ Which country has the lowest life expectancy? _____

9. Which is the most urban country in Africa? _____ In Asia? _____ In North America? _____ In Latin America? _____ In Europe? _____ In Oceania? _____

10. Which country is the wealthiest in terms of per capita Gross National Product? _____ Which is the second wealthiest? _____ In what region(s) of the world are these countries located? _____

Analyzing the Data

Use the World Population Data Sheet to complete the following activities. Depending on the instructions from your teacher, you can complete these activities individually or in small groups in class, or as a homework assignment.

1. Observe on the 1985 World Population Data Sheet the crude birth rate, crude death rate and rate of natural increase of the world and at least three countries. Enter the data below. Devise a formula to calculate the rate of natural increase based on the relationships you have observed.

	Crude Birth Rate	Crude Death Rate	Rate of Natural Increase
World	_____	_____	_____
#1 _____	_____	_____	_____
#2 _____	_____	_____	_____
#3 _____	_____	_____	_____

Formula:

2. Using the World Population Data Sheet, make a table which compares countries whose populations have stopped growing with countries whose populations are growing rapidly.

- Choose four countries whose populations have either stopped growing, are decreasing in size, or are growing at a .1 percent rate of natural increase.
- Choose four countries whose populations are growing at 3.0 percent or more. Do not include the countries of Southwest Asia (the Middle East) because they represent special cases.
- Construct a table which includes the following data for each country: infant mortality rate, total fertility rate, population under age 15, life expectancy, percent of urban population, and per capita Gross National Product.
- Describe briefly the differences between the slow- or non-growing countries and the fast-growing countries in terms of the characteristics listed above.
- Describe how Bahrain, Kuwait, United Arab Emirates and other oil-rich countries in the Middle East are exceptions to the generalizations you have made. Why are they different?

For Further Reading and Research

From the Population Reference Bureau

- World Population: Fundamentals of Growth Student Chartbook. $2.00 for a single copy; 2-10 copies, $1.50 each; 11-50 copies, $1.00 each; 51 or more, $.75 each.

  Six charts with readings which illustrate the fundamentals of population growth and change.

- Population Handbook. $4.00 for a single copy; 2-49 copies, $3.50 each; 50-99 copies, $3.00 each; 100 or more, prices on request.

  A 64-page guide to demographic basics with definitions and examples of all major rates and ratios.

- Food and Population: A Global Concern. $2.00 for a single copy; 2 or more, $1.75 each.

  A 13-page reading on the relationship between population growth and food production.

- The Environment to Come: A Global Summary. $2.00 for a single copy; 2 or more, $1.75 each.

  A 13-page summary of the findings of recent global population, resource and environment studies.

- Population Bulletins. $4.00 for a single copy; 2-10 copies, $3.00 each; 11-50 copies, $2.50 each; 51 or more, $2.00 each.

  Concise paperback reports on population topics. Of particular interest are: "Sub-Saharan Africa: Population Pressures on Development," "Planet Earth 1984-2034: A Demographic Vision," "China: Demographic Billionaire," "U.S. Population: Where We Are; Where We're Going" and "India's Population: Second and Growing."

- "The New Population Debate: Two Views on Population Growth and Economic Development," Population Trends and Public Policy series. $3.00 for a single copy; 2-10 copies, $2.30 each; 11-50 copies, $1.90 each; and 51 or more, $1.50 each.

  Timothy King of the World Bank and Allen Kelley of Duke University present two perspectives on the issue of rapid population growth and economic development.

  Send orders for PRB publications to: PRB, P.O. Box 35012, Washington, D.C. 20013. All orders under $20.00 must be prepaid with a $1.00 shipping/handling fee included.

Other Resources

- Atlas of World Population History, by Colin McEvedy & Richard Jones. Penguin Books, 625 Madison Ave., New York, N.Y. 10022. 1978, 368 pp., $4.95.

  The Atlas is a reference tool for historical population data. It is divided into sections on the major regions of the world with specific population data also given for some countries within those regions.

- The Crowded Earth: People and the Politics of Population, by Pranay Gupte. W.W. Norton & Co., 500 Fifth Ave., New York, N.Y. 10110. 1984, 349 pp., $17.95.

  A former New York Times foreign correspondent visited 40 countries to see whether the $6 billion spent on population programs had been well spent. He interviewed family planning leaders and critics as well as many members of the general public.

- Great Decisions '85. Foreign Policy Association, 205 Lexington Ave., New York, N.Y. 10016. 1985, 96 pp., $6.00 plus $1.00 shipping/handling.

  "Population Growth: Critical North-South Issue?" is one of eight sections in the 1985 edition of Great Decisions. The reading covers the economics of population growth, ethnic issues, megacities, population and political power, family planning and other population-related issues.

- The Development Data Book: Social and Economic Statistics on 125 Countries. The World Bank, 1818 H St. N.W., Washington, D.C. 20433. 1984, 16 pp., $5.00. (A teacher's guide with numerous activities is available for $5.00.)

  Social and economic indicators, including population growth rates, are presented in colorful charts, maps and tables.

- Population, Volume 3. Social Issues Resources Series, P.O. Box 2507, Boca Raton, Fla. 33427. 80 articles, $56.00.

  Volume 3 is a collection of 80 recent articles on population and related topics from a wide variety of sources.

- "Population Growth and Economic Development," Population Briefing Paper. Population Crisis Committee, 1120 19th St. N.W., Washington, D.C. 20036. February 1985. Free in limited quantities. Write for their publications list.

  The relationship of demographic trends to economic performance in a country is examined in this 8 page paper.

- Reflections on Population, by Rafael M. Salas. Pergamon Press, Elmsford, N.Y. 1985, 336 pp. Contact the UNFPA (220 E. 42nd St., New York, N.Y. 10017) for information on this publication.

  Salas, Executive Director of the U.N. Fund for Population Activities, wrote this book to describe the work of the UNFPA in developing countries and to relate the experiences to the issues discussed at the International Conference on Population in Mexico City in 1984.

- State of the World 1985, by Lester R. Brown, et. al. W. W. Norton & Co., 500 Fifth Ave., New York, N.Y. 10110. 1985, 301 pp. Available from the Population Reference Bureau for $4.00 for PRB members and $8.95 for nonmembers.

  This is the second in a series of annual reports from the Worldwatch Institute which describe worldwide progress in achieving a sustainable society.

- World Development Report 1984. Published by Oxford University Press. Available from The World Bank, PUB H-2007, 1818 H St. N.W., Washington, D.C. 20433. 1984, 286 pp., $8.00 paperback.

  The 1984 edition of the World Development Report examines population change in developing countries and its links with development. Multi-color maps and charts illustrate the text and a 20-page Population Data Supplement is included.

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Population: What In The World Is Happening? II

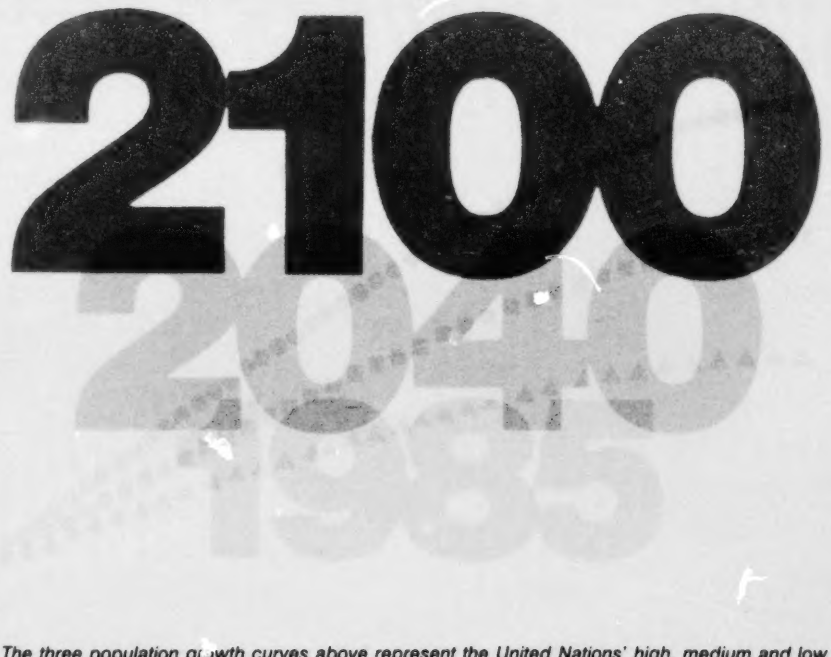
It has been four years since the first edition of *World Population: Toward the Next Century* was written by Elaine M. Murphy and published by the Population Reference Bureau. After numerous reprintings and requests from teachers for more recent information, the module has been revised and updated.

What changes have occurred in the population picture during the past four years? As is always the case with population, the numbers have changed a great deal and some of the rates have changed slightly. Our perceptions of population events have changed as well. The population planning program in China with its emphasis on the one-child family is now considered to be even more controversial as aftereffects of its implementation, such as allegations of coercive abortions, are making headlines.

The success of India's family planning program is being reevaluated. Previously considered to have produced very disappointing results despite its long history, the national family planning program has made some significant gains in the past decade.

The recent famine in Ethiopia and other African countries, while not directly caused by population growth, is related to the rapid population growth in that region. Food production has not kept pace with population growth in Africa in recent years. That fact combined with the political and social situation in the region and the widespread drought have made for the worst famine in Africa in this century.

World Population: Toward the Next Century was originally designed to satisfy the need for a short, clearly written unit on world population trends for students and other nonexperts. The need still exists. As curricula become more crowded with required units, population studies must often be reduced to a lesson covering one or two class periods. With this in mind the *World Population* module has been revised to make it easier to use in the classroom. The reading has been updated with new charts and tables. The *1985 World Population Data Sheet* replaces the 1981 edition and appears in four pages in center of the booklet for easy use by readers. It is followed by a glossary of population and development terms which will help the reader understand the terms used in the reading and the *Data Sheet*.



The three population growth curves above represent the United Nations' high, medium and low projections for the world population. The population is projected to reach 14.199, 10.185 or 7.524 billion in the year 2100.

The activities have been reorganized to accommodate a new format. Two worksheets appear at the end of the module. Both are perforated at the inside margin to allow students to tear them out of the booklet to hand in after completion or to accommodate photocopying by the teacher. Worksheet One with "Checking the Facts" and "Beyond the Facts" requires prior reading of the essay in the module. "Scanning the World Population Data

(continued on page 4)

Teacher's Guide to World Population: Toward the Next Century

Grade Level

High School–College

Time Needed

Approximately 30 minutes are needed for the reading. "Checking the Facts" on Worksheet One requires 1-1½ hours, depending on whether it is used as a closed-book test or open-book exercise. The time needed for "Beyond the Facts" depends on how the opinion statements are used. "Scanning the World Population Data Sheet" on Worksheet Two requires 30-45 minutes and "Analyzing the Data" requires 1-1½ hours.

Materials

The module contains everything the student needs: a reading, the *1985 World Population Data Sheet*, a glossary of demographic terms, two worksheets with perforated edges for easy removal, and a list of books and other publications for additional research and reference. (Teachers may order classroom sets of the module—ordering information appears on the inside cover of the module—or photocopy the module for their students.)

Goal

To enable the student to understand: current and projected population patterns throughout the regions of the world; how populations change; the consequences of population change for individuals, families, societies and the environment; and the complexity of developing policies to deal with problems associated with population change.

Objectives

By completing the reading and worksheets, students should be able to:

—describe the components of population change and how these components vary in different areas of the world

—define some basic demographic and development terms

—describe the relevance of population growth to various problems

—propose and evaluate population-related policies involved in planning for the future

—identify benefits, drawbacks and important issues which may arise as societies attempt to influence population change

—express opinions and values about population change and the future

—analyze tabular data to determine population-related characteristics of countries

—use graphs, charts and formulas to analyze population phenomena.

More Classroom Activities

The following activities appeared in the first edition of *World Population: Toward the Next Century* by Elaine M. Murphy.

Questions for Thought and Discussion

The following questions can be used as topics for class discussion at the end of the unit, small group discussions or essay questions. Answers can be found in the module reading and charts, but additional research by students would be useful as well.

1. Why is the population of the world distributed so unevenly throughout the world?
2. Why are more and more people living in urban areas?
3. If current trends continue, there will be 25 cities of over 10 million in the year 2000 (there were 10 in 1980). Mexico City will have a population of 26.3 million. Do you think this will really happen? Why or why not?
4. How can population growth intensify problems even if it is not the root cause of them? Give two examples.
5. How can high fertility be viewed as a consequence of poverty as well as a cause or intensifier of it?
6. Why are social and economic improvement, together with family planning programs, essential for sustained reduction in fertility rather than family planning alone?
7. Why is the status of women (in terms of level of education, employment and self-esteem) an important determinant of fertility?
8. How are migration policies used to regulate population growth (both immigration and emigration)?
9. Why has China been more successful than India in reducing its fertility?
10. What are the population problems of countries which have stopped growing or which are growing very slowly?

Research Topics

The following subjects may be assigned as research or presentation topics. Students will find the resources on page 17 of *World Population: Toward the Next Century* helpful in conducting their research. Several of the research topics may be narrowed by limiting research to the experience of a particular country or region.

- The relationship of population growth or change to development goals (for example, housing, employment and health services).
- The relationship of population growth or change to environmental problems (for example, deforestation, pollution and inadequate water supplies).
- The importance of age structure (proportion of people at various ages in the population) to a country's future.
- Case studies of the population history and current trends of particular countries. Be sure to point out how traditions, culture and population factors interact. Of particular interest to population studies are: China, Indonesia, Hong Kong, India, Egypt, Kenya and other African countries, Mexico, the United States, Canada, the USSR and the countries which have reached or are very close to zero population growth (Austria, Belgium, East Germany, West Germany, Luxembourg and Denmark).
- An investigation of local community

problems related to population growth or decrease.

- An investigation into the causes of death and average age at death in the local community or state in the early 1900s and today. Cemeteries, obituaries in the local newspapers and church or synagogue records may provide some historical information. State health department records and publications as well as the publications of the National Center for Health Statistics should provide useful information.

Answers to Worksheet One and Two

"Checking the Facts"

1. 4.85 billion
2. 1) China; 2) India; 3) USSR; 4) US; 5) Indonesia; 6) Brazil; 7) Japan; 8) Bangladesh; 9) Pakistan; and 10) Nigeria
3. Asia
4. 28.9%; 43.3%; and 62.5%
5. 25 cities
6. In 41 years
7. The population base, to which the growth rate is applied, will be much larger at the end of the century.
8. 2110 with 10.5 billion
9. Yes, if you look at population growth through history. The world population did not begin to grow rapidly until the 1800s. Since that time the population has quadrupled. *(continued on page 4)*

Teacher's Corner

Conducting a Population Opinion Poll

by Mildred J. Bohn

Mildred Bohn, a long-time population educator, recently retired from her teaching position in the North Olmstead schools in Ohio. In recognition of her work in the field of population education, we are reprinting one of the many activities she developed for use in her classes.

The questionnaire below is part of one used by Gallup in a national opinion poll taken in the mid-1960s. Ask your students to administer the poll to their class or to other student groups to which they belong. It will give them experience in survey research and data gathering. It may also suggest some relationships between population and the other items mentioned.

The first three questions in the poll are informational and the last four are opinion questions. Answers to the information questions can be found at the end of this article.

When the students have finished polling their peers, they could conduct a comparative study by asking the same questions of their parents. The results of the student group could then be compared with that of the parent group. They may also want to do some research on public attitudes toward population growth and environmental problems in the 1960s and the 1980s to compare with their own results. This would be a good opportunity to discuss the problems and pitfalls of survey research, such as the importance of sample size in trusting conclusions.

Questionnaire

1. Can you tell me about how many people there are in the United States?

Under 50 million	175 to 199 million
50 to 99 million	200 to 224 million
100 to 149 million	225 to 499 million
150 to 174 million	500 million or over
	Can't say

2. If our population continues its present rate of growth, how many years will it be before it is twice as large as it is now?

10 years or less	61 or 75 years
11 to 25 years	76 to 100 years
26 to 44 years	over 100 years
45 to 60 years	Can't say

3. Here are some countries that have different rates of population growth. After each one, tell me whether you think it is growing faster, slower or about the same as the United States.

	Faster	Slower	About same
Brazil	_____	_____	_____
England	_____	_____	_____
India	_____	_____	_____
Japan	_____	_____	_____
U.S.S.R.	_____	_____	_____

4. What about the rate at which the U.S. population is growing? Do you feel this is a serious problem or not?
   Yes ____ No ____
5. (If "yes" to No. 4) Which do you think is the more serious problem in the United States—population growth or ____?

	Pop. growth	The other	Both same
Environmental pollution	_____	_____	_____
Inflation	_____	_____	_____
Unemployment	_____	_____	_____
Fuel shortage	_____	_____	_____

6. Do you feel the rate of growth of WORLD population is a serious problem?
   Yes ____ No ____
7. (If "yes" to No. 6) Which do you think is the more serious problem—the growth of world population or ____?

	World pop. growth	The other	Both same
World hunger	_____	_____	_____
Gap between rich and poor nations	_____	_____	_____
Threat of nuclear war	_____	_____	_____

(Answers: (1) 225 to 499 million; (2) 76 to 100 years; (3) Brazil, faster; England, slower; India, faster; Japan, slower; USSR, about the same.)

Answers *(continued from page 3)*

10. Developed countries experienced a slow decline due to industrialization and new technologies in the late 1700s and public health advances in late 19th-early 20th centuries. In the developing countries the decline happened suddenly after WWII due to the introduction of medical and public health technology from the outside.
11. Air and water pollution, declining supplies of minerals and fossil fuels, deforestation, overfishing, loss of agricultural land, crowding and its effects, poverty, social and political unrest, inadequate housing, schools and health services.
12. If a country has had high fertility in the past, its population will continue to grow until the young people resulting from that high fertility have passed out of their childbearing years. Large numbers of young couples, having an average of only one or two children can still produce an extremely large total of births, much larger than the total of deaths. Until births equal deaths, the population will continue to grow through natural increase.
13. Policies which provide for the availability of family planning information and services within the context of social and economic improvement, including improvement of the status of women, are most successful in reducing population growth.
14. China, Mexico, Indonesia, Thailand, Hong Kong and Singapore.
15. Austria, West Germany, East Germany, and Luxembourg.

"Scanning the World Population Data Sheet"

1. Kenya. Jordan.
2. India. China: 11.46 million. India: 16.76 million.
3. China. China.
4. 6) Nigeria; 7) Brazil; and 10) Japan.
5. Kenya, 8.0. West Germany, 1.3.
6. Afghanistan, 205. Finland, 6.0.
7. Kenya. Sweden.
8. Japan and Iceland. Sierra Leone.
9. Africa: Libya. Asia: Singapore. N. America: Canada. L. America: Uruguay. Europe: Belgium. Oceania: Australia.
10. United Arab Emirates. Qatar. SW Asia or the Middle East.

"Analyzing the Data"

1. Formula: Birth Rate – Death Rate ÷ 10 = Rate of Natural Increase.

What's New in the AV Library

The Population Reference Bureau has added a new film to the Population Film Library. It will be available for rental after June 1, 1985.

Not Together Now

(1974), 25 minutes, 16 mm color film.

This film gives a piercing look at the personal side of the divorce statistics. A separated husband and wife talk about what first attracted them to each other and what slowly happened to their relationship.

The film gives a rare view of the considerations that go into deciding to marry and the factors that can cause a couple to drift apart. After their split the wife has custody of their children. She talks about the benefits and disadvantages of being a single mother. The husband is eager to be a good father, but finds that parenting conflicts with his work.

"Not Together Now" is a good discussion starter about the risks and rewards of marriage and the factors that may lead to divorce.

The rental fee is $10. Anyone interested in purchasing this film should contact PRB for the name and address of the distributor. Write: Film Librarian, PRB, 2213 M St. N.W., Washington, D.C. 20037.

(continued from page 1)

Sheet" and "Analyzing the Data" in Worksheet Two does not require any prior preparation on the part of the students. Those activities only require that students have copies of the *Data Sheet* in the module and Worksheet Two.

A teacher's guide to the *World Population: Toward the Next Century*, including additional activities and answers to the worksheets in the module can be found in this issue of *Interchange*.

PRB Materials and Memberships

Are you interested in rounding out your INTERCHANGE collection? Back issues of INTERCHANGE and TEACHING TOOLS are available for $2.00 each; two or more copies, $1.75 each. Titles include:

- "U.S. Population Data Teaching Package," March 1981
- "Growing Old in America," September 1981
- "World Population: Toward the Next Century," November 1981
- "Children: A Constant Concern," with the 1982 World's Children Data Sheet, April 1982
- "Immigration: Questions and Answers," July 1982
- "Teacher's Guide to the Future," December 1982
- "The Environment to Come: A Global Summary," March 1983
- "Food and Population: A Global Concern," December 1983
- "The American Family: Changes and Challenges," October 1984.
- "The Food Crisis in Sub-Saharan Africa," March 1985

If you find INTERCHANGE interesting and useful, you would probably enjoy receiving other Population Reference Bureau publications. PRB has special memberships for educators. A $10.00 Associate Educator Member receives four issues of INTERCHANGE, two TEACHING TOOLS, the WORLD POPULATION DATA SHEET and the U.S. POPULATION DATA SHEET. The $20.00 Educator Member receives all of the above in addition to four POPULATION BULLETINS, in-depth studies of one population topic, and eleven issues of POPULATION TODAY, the population newsmagazine.

To join, send your name, address (and school affiliation if different from address), and check to: Population Reference Bureau, P.O. Box 35012, Washington, D.C. 20013.

Interchange is . . .

a publication of the Population Reference Bureau, published quarterly during the academic year. This issue was written by Patricia Cancellier and Margaret Greene. The purpose of the newsletter is to further the goal of infusing population materials into U.S. schools by (1) presenting information on population-related issues; (2) distributing classroom materials; (3) reviewing developments in the field of population education. Interchange depends upon an exchange of information and ideas and thus openly solicits correspondence from its readers.

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